

CLAIMS

1) Method for transmission of variable sized packets from an upper layer of a stack of communication protocol layers to a lower layer intended to manage fixed sized packets, said method comprising the steps of:

forming a segmentation and reassembly layer intended to manage SAR packets, each SAR packet being made up of a header obtained in adding delineation information to the header of one of the variable sized packets of the upper layer and of a payload which contains the payload of the upper layer packet, and

segmenting the flow of the thus obtained SAR packets into fixed sized packets for transmitting to the lower layer.

2) Method to claim 1, wherein said delineation information is made up of a flag with a specific pattern.

3) Method according to claim 1 ~~or 2~~, wherein the header of each SAR packet is provided with a field which codes the length of the payload of said packet.

4) Method according to ~~one of the preceding claims~~, wherein said header is provided with a field which is a replica of the header of the upper layer packet whose payload makes up its payload.

5) Method according to claim 4, the headers of the upper layer packets having different lengths depending on characteristics of their payloads, wherein the header of each SAR packet is provided with a field which codes the length of the upper layer packet header.

6) Method according to one of the preceding claims, wherein the header of each SAR packet is provided with a cyclic redundancy code applied to the whole header, the delineation information excepted.

7) Method according to ~~one of the preceding claims~~, wherein each SAR packet is optionally provided with a cyclic redundancy code applied to the payload of said packet.

8) Packet intended to be managed by a layer of a communication protocol stack between an upper layer supporting variable sized packets and a lower layer supporting fixed sized packets, wherein said packet is a variable sized packet whose header is made up in adding a delineation information to the header of the upper layer packet and whose payload contains the payload of said upper layer packet.

9) Packet according to claim 8, wherein said delineation information is made up of a flag with a specific pattern.

10) Packet according to claim 8 ~~or 9~~, wherein its header is provided with a field which codes the length of the payload of said packet.

11) Packet according to ~~one of the preceding claims 8 to 10~~, wherein its header is provided with a field which is a replica of the header of the upper layer packet whose payload makes up its payload.

12) Packet according to claim 11, the headers of the upper layer packets having different lengths depending on the corresponding payload, wherein its header is provided with a length code field which codes the length of the upper layer packet header.

13) Packet according to ~~one of the preceding claims 8 to 12~~, wherein its header is provided with a cyclic redundancy code applied to the whole header, the delineation information excepted.

14) Packet according to ~~one of the preceding claims 8 to 13~~, wherein it is provided with a cyclic redundancy code applied to its whole payload.

15) Method for recovering a variable sized packet of an upper layer of a stack of communication protocol layers from a flow of packets according to ~~one of the preceding claims 8 to 15~~, said method comprising the steps of:

searching in the flow of packets an delineation information and, when found, decoding a header of a found packet, then extracting the upper layer packet header, and,

pointing out a payload of the found packet, then extracting the upper layer packet payload.

16) Method according to claim 15, wherein it includes a step of reading the length field out of the found packet header in order to point out the payload of the found packet.

17) Method according to claim 15 ~~or 16~~, wherein it includes a step of checking that no error has occurred in the header during transmission of the found packet and, if it has, restarting the step of searching an information delineation.

18) Method according to claim ~~15 to 17~~, wherein it includes a step of checking that no error has occurred in the payload during transmission and, if it has, restarting the step of searching an information delineation.

19) Method according to claim 15 ~~to 18~~, wherein it includes a step of reading the length code field out of the found packet header in order to read the header of the upper layer packet.

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